

REMARKS

The present amendment is submitted in response to the Office Action dated September 9, 2005, which set a three-month period for response. Filed herewith is a Request for a Two-month Extension of Time, making this amendment due by February 9, 2006.

Claims 1, 4, and 5 are pending in this application.

In the Office Action, claims 1, 4, and 5 were rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,606,976 to Nagano.

In the present amendment, claim 1 has been amended to add the features of claim 4, which was canceled, and to add the additional feature that the step of heating fuel to be injected in the at least one combustion chamber is activated prior to starting the internal combustion engine (support for this feature can be found in the specification, in the paragraph bridging pages 7-8).

In contrast to amended claim 1, the patent to Nagano expressly teaches that the heater 4 is heated when the internal combustion engine undergoes self-sustaining rotation (complete combustion at point "a" in Figure 2) subsequent to cranking by a starter. The Applicants respectfully direct the Examiner's attention to Nagano, at column 4, from line 28 and Figure 2.

In addition, column 4, from line 34 discloses that time operations of the starter and the heating during a startup do not overlap in order to avoid cripple starter operation that might otherwise be caused by the overlapping.

Such a strategy would not be helpful in a direct start procedure, which is facilitated by the present invention. According to the present invention, the vaporization of that fuel that is injected first after a standstill is enhanced. This is done in order to enhance the torque that is generated by the very first combustion after the stand still. Thus, direct start capability, that is, the capability to be started without or at least with reduced electric starter power is improved.

It should be noted further that Nagano does not disclose an internal combustion engine with direct injection, but an engine with multipoint injection. In multipoint injection systems, the fuel is sprayed into the intake manifold in the vicinity of closed inlet valves (see Fig. 1, injection valve 2 and inlet valve 24 of Nagano). Therefore, the mixture is formed outside the combustion chamber and is sucked into the combustion chamber only after opening the inlet valve at 24.


In contrast, an internal combustion engine with direct injection sucks pure air into the combustion chamber and fuel is injected directly into the air filled combustion chamber.

In conclusion, Nagano does not disclose, show, or even suggest the features of amended claim 1. Therefore, the subject matter of amended claim 1 is neither anticipated by nor made obvious over the Nagano patent. Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim. *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984).

For the reasons set forth above, the Applicants respectfully submit that claims 1 and 5 are patentable over the cited art. The Applicants further request withdrawal of the rejection under 35 U.S.C. 102 and reconsideration of the claims as herein amended.

Should the Examiner have any further comments or suggestions, the undersigned would very much welcome a telephone call in order to discuss appropriate claim language that will place the application into condition for allowance.

Respectfully submitted,



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